IN THE CLAIMS

1-6. (Canceled)

7. (Currently Amended) The hydrophilic ~~Hydrophilic~~ polypeptide of *Eimeria* ~~according to claims 1 – 6, characterised in that the homology is 100%~~, comprising an amino acid sequence that shares at least 70% homology with a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO;4, SEQ ID NO:5 and SEQ ID NO:6.

8. (Currently Amended) A hydrophilic ~~Hydrophilic~~ polypeptide ~~according to claims 1 – 7, characterised in that the *Eimeria* is~~ of *Eimeria tenella*, comprising an amino acid sequence that shares at least 70% homology with a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO;4, SEQ ID NO:5 and SEQ ID NO:6.

9. (Currently Amended) An isolated DNA fragment comprising a nucleotide sequence encoding a hydrophilic polypeptide or an immunogenic fragment of said polypeptide~~,~~ according to claim 7 ~~claims 1 – 8~~.

10. (Currently Amended) The DNA fragment according to claim

9, ~~characterised in that it~~ which comprises a nucleic acid sequence as depicted in SEQ ID NO: 39 or a fragment thereof.

11. (Currently Amended) The DNA fragment according to claim 9, ~~characterised in that it~~ which comprises a nucleic acid sequence as depicted in SEQ ID NO: 40 or a fragment thereof.

12. (Currently Amended) The DNA fragment according to claim 9, ~~characterised in that it~~ which comprises a nucleic acid sequence as depicted in SEQ ID NO: 41 or a fragment thereof.

13. (Currently Amended) A recombinant ~~Recombinant~~ DNA molecule comprising a DNA fragment according to claim 9 ~~claims 9 - 12~~.

14. (Currently Amended) A live ~~Live~~ recombinant carrier comprising a DNA fragment according to claim 9 ~~claims 9 - 12 or a recombinant DNA molecule according to claim 13~~.

15. (Currently Amended) A host ~~Host~~ cell comprising a DNA fragment according to claim 9 ~~claims 9 - 12, a recombinant DNA molecule according to claim 13 or a live recombinant carrier according to claim 14~~.

16. (Currently Amended) A vaccine ~~Vaccine capable of protecting~~ for the protection of poultry against *Eimeria* infection, ~~characterised in that it comprises~~ comprising at least one immunogen selected from the group consisting of

a hydrophilic polypeptide according to claim 7; ~~claims 1-8,~~

an isolated DNA fragment comprising a nucleotide sequence encoding a hydrophilic polypeptide or an immunogenic fragment of said polypeptide according to claim 7; ~~according to claims 9-12,~~

a ~~Recombinant~~ recombinant DNA ~~fragment~~ molecule comprising said DNA fragment; ~~according to claim 13,~~

a live recombinant carrier comprising said DNA fragment or recombinant DNA molecule; ~~according to claim 14 or~~ and

a host cell comprising said DNA fragment, said recombinant DNA molecule or said live recombinant carrier; ~~according to claim 15~~

and a pharmaceutically acceptable carrier.

17. (Currently Amended) The vaccine ~~Vaccine~~ according to claim 16, which ~~characterised in that it~~ additionally comprises an adjuvant.

18. (Currently Amended) The vaccine ~~Vaccine~~ according to claim 16 ~~or 17~~, which ~~characterised in that it~~ comprises ~~an~~ at least one additional immunogen ~~derived from~~ of a poultry pathogen

~~pathogenic virus or micro-organism~~.

19. (Currently Amended) The vaccine ~~Vaccine~~ according to claim 18, ~~characterised in that~~ wherein the ~~immunogen~~ at least one poultry pathogen is selected from the group consisting of ~~poultry pathogenic viruses or micro-organisms consisting of~~ Marek's Disease virus (MDV), Newcastle Disease virus (MDV), Infectious Bronchitis virus (IBV), Chicken Anaemia Agent (CAA), ~~Reo virus~~ Reovirus, Avian ~~Retro virus~~ Retrovirus, Fowl ~~Adeno virus~~ Adenovirus, Turkey Rhinotracheitis virus, *Salmonella* spp. ~~or~~ and *E. coli*.

20. (Currently Amended) The vaccine ~~Vaccine~~ according to claim 16 ~~claims 16 - 19, characterised in that it is~~ which is in freeze-dried form.

21. (Currently Amended) An antibody raised against a polypeptide according to claim 7 ~~claims 1 - 8~~.

22. (Currently Amended) A method ~~Method~~ for the preparation of antibodies against a polypeptide according to claim 3, ~~claims 1 - 8, characterised in that said method comprises~~ which comprises administering said polypeptide to a suitable animal.

23. (Canceled)

24. (Currently Amended) A method ~~Method~~ for the preparation of a vaccine for ~~combating~~ combatting *Eimeria* infections, ~~characterised in that said method comprises~~ comprising admixing antibodies according to claim 21 with a pharmaceutically acceptable carrier.

25. (Currently Amended) A method ~~Method~~ for the detection of *Eimeria* parasites in poultry, ~~characterised in that said method comprises~~ comprising incubating a DNA preparation from the poultry with a DNA fragment according to claim 9, ~~claims 9 - 12~~ whereby the detection of hybrids is indicative of the presence of *Eimeria* in the DNA preparation.

26. (Currently Amended) A method ~~Method~~ for the detection of antibodies against *Eimeria* parasites in poultry serum, ~~characterised in that said method comprises~~ comprising incubating said serum with the hydrophilic polypeptide according to claim 7, ~~claims 1 - 8~~ whereby the formation of a complex between the polypeptide and antibodies in the serum indicates a positive result.

27. (NEW) A live recombinant carrier comprising a

recombinant DNA molecule according to claim 13.

28. (NEW) A host cell comprising a recombinant DNA molecule according to claim 13.

29. (NEW) A host cell comprising a live recombinant carrier according to claim 14.